DAC Indicators

Energy Burden (5)

Description	Definition	Variable Name (Short)	Source
Energy Burden	Annual average energy burden based on average annual housing energy costs divided by the average annual household income	avg_energy_burden (ENERGYBRDN)	U.S. Department of Energy (LEAD, 2018)
Non-grid- connected heating fuel	Percent of households that use a fuel other than grid-connected gas or electricity or solar energy as their main heat source	nongrid_heat_pct (NONGRIDPCT)	U.S. Census Bureau (ACS 2015-2019)
Outage Duration	Average duration of power outage events (in minutes) that occurred for all census tracts in each county from 2017-2020	grid_outage_duration (OUTAGEDUR)	U.S. Department of Energy Office of Electricity
Outage Events	Number of power outage events that occurred for all census tracts in each county from 2017-2020	grid_outages_county (OUTAGECNT)	
Transportation Costs	Transportation Costs % Income for the Regional Typical Household	avg_transport_burden (TRNSPTBRDN)	Center for Neighborhood Technology, 2016

Environmental and Climate Hazards (10)

Description	Definition	Variable Name (Short)	Source
Cancer Risk	EJ Index for Air toxics cancer risk	ej_cancer (CANCER)	U.S. Environmental Protection Agency (EJSCREEN, 2020)
Climate Hazards Loss of Life estimates	Expected annual loss of life (fatalities and injuries) from 18 different climate hazards	fema_loss_of_life (EAL_NPCTL)	U.S. Federal Emergency Management Agency, (NRI, 2020)
Diesel	EJ Index for Diesel particulate matter level in air	ej_diesel (DSLPM)	
Homes Built Before 1960	Percent of housing units built before 1960 (lead paint indicator)	lead_paint_pct (PRE1960PCT)	U.S. Environmental Protection Agency (EJSCREEN, 2020)
NPL Proximity	EJ Index for Proximity to National Priorities List (NPL) sites	ej_npl (PNPL)	
PM25	EJ Index for PM2.5 level in air (PM25)	ej_pm25 (PM25)	
RMP Proximity	EJ Index for Proximity to Risk Management Plan (RMP) facilities	ej_remediation (PRMP)	
Traffic Proximity	EJ Index for Traffic proximity and volume (PTRAF)	ej_traffic (PTRAF)	
TSDF Proximity	EJ Index for Proximity to Treatment Storage and Disposal (TSDF) facilities	ej_tsdf (PTSDF)	
Water Discharge	EJ Index for Indicator for major direct dischargers to water	ej_water (PWDIS)	

Socio-economic Vulnerabilities (19)

Description	Definition	Variable Name (Short)	Source
>30 min commute	Percent of total population with a drive time to employment greater than or equal to 30 minutes	over_30min_commute_pct (NOINTPCT)	U.S. Census Bureau (ACS 2015-2019)
Disabled population	Percent of the non-institutionalized population with any disability	disability_pct (DISABLPCT)	
Food Desert	Share of neighborhood without access to affordable or good-quality fresh food (Percentage who live within 1/2 mile (urban) or 10 miles (rural) of supermarket	food_desert_pct (FOODSRTPCT)	U.S. Department of Agriculture (Food Access Research Atlas Data, 2019)
Homelessness	Representative of homeless population; calculated using total number of Sheltered and Unsheltered Population per sq. km	unhoused_pct (HOMELESPCT)	U.S. Department of Housing and Urban Development (Continuum of Care GIS Tools, 2019)
Housing Costs	Housing Costs % Income for the Regional Typical Household	avg_housing_burden (HOUSEBRDN)	Center for Neighborhood Technology, 2016
Incomplete Plumbing	Percent of occupied housing units without complete plumbing	incomplete_plumbing_pct (INCPLMBPCT)	U.S. Census Bureau (ACS 2015-2019)
Internet Access	Percent of Households with No Internet Access	no_internet_pct (LONGCOMPCT)	U.S. Department of Commerce
Job Access	Job Access Score (0-10) (negative value enters the index)	job_access (JOBACCESS)	Center for Neighborhood Technology, 2016
Less HS Education	Percent of total population, age 25 and older, whose reported education is short of a high school diploma	lessHS_pct (LESSHSPCT)	U.S. Census Bureau (ACS 2015-2019)
Linguistic Isolation	Percent of households (interpreted as individuals) where no one in the household speaks English well	linguistic_isolation_pct (LINGISOPCT)	U.S. Environmental Protection Agency (EJSCREEN, 2020)
Low Income Population	Percent of total population reported at or below 200% of the Federal Poverty Level	lowincome_fpl_pct (LOWINCFPCT)	U.S. Census Bureau (ACS 2015-2019)
Mobile Home	Percent of total population in mobile homes	mobile_home_pct (MOBILHMPCT)	

No Vehicle	Percent of total population with no vehicle(s) available	no_car_pct (NOCARPCT)	U.S. Census Bureau (ACS 2015-2019)
Parks	Count of parks per census tract (negative value enters the index)	green_space (GREENSPACE)	ESRI 2019
Population 65 and older	Percent of total population over age 64	over64_pct (OVER64PCT)	U.S. Environmental Protection Agency (EJSCREEN, 2020)
Renters	Proportion of occupied housing units not occupied by property owners	renters_pct (RENTPCT)	U.S. Census Bureau (ACS 2015-2019)
Single Parent	Proportion of family households with children under age 18 with only one parent	single_parent_pct (SNGLPNTPCT)	
Unemployed	Percent of civilian labor force reported as unemployed	unemployed_pct (UNEMPPCT)	
Uninsured	Percent of population without health insurance coverage	uninsured_pct (UNINSURPCT)	

Fossil Dependence (2)

Description	Definition	Variable Name (Short)	Source
Coal employment	Percent of total civilian jobs in the coal sector	coal_emp_rank (COALEMPLMT)	U.S. Bureau of
Fossil energy Employment	Percent of total civilian jobs in the fossil energy sector	fossil_emp_rank (FOSSEMPLMT)	Labor Statistics (CES, 2018)

Informational and Computed Values

Description	Definition	Variable Name (Short)	Source
DAC Score	Cumulative burden, sum of the	DAC_score	Computed
	percentiles across the 36 indicators	(DACSCORE)	
DAC Status	Binary computed value, equals one if	DAC_status	Computed
	the tract is considered disadvantaged	(DACSTS)	
	for J40 and zero otherwise		
Low Income	Percent of total population considered	lowincome_ami_pct	U.S. Department of
Population	low income based on area median	(LOWINCAPCT)	Housing and Urban
	income		Development
National Ranking	The rank of the DAC score for the tract	tract_national_percenti	Computed
	as a percent of the full dataset	le	
		(NATLRANK)	
Population	Population of census tract	population	U.S. Census Bureau
		(POPULATION)	(ACS 2015-2019)
State Ranking	The rank of the DAC score for the tract	tract_state_percentile	Computed
	as a percent of the state data	(STATERANK)	

Geographic

Description	Definition	Variable Name (Short)	Source
CBSA name	Core based statistical area name	cbsa_name (CBSANAME)	U.S. Census Bureau (LEHD, 2018)
Census tract FIPS code	Unique identifier for census tract	GEOID	U.S. Census Bureau (ACS 2015-2019)
City	City Name	city (CITY)	Proximity One Census Tract (City Place Relationship Table)
Core-Based Statistical Area	Core based statistical area code (CBSA is micropolitan and metropolitan statistical areas combined)	cbsa_number (CBSA)	U.S. Census Bureau (LEHD, 2018)
County FIPS code	County FIPS code	county_fips (COUNTYFIPS)	U.S. Census Bureau (LEHD, 2018)
County name	County Name	county_name (COUNTY)	U.S. Census Bureau (LEHD, 2018)
State abbreviation code	State name abbreviation	state_code (STATEABB)	U.S. Census Bureau (LEHD, 2018)
State FIPS code	State FIPS code	state_fips (STATEFIPS)	U.S. Census Bureau (LEHD, 2018)
State full name	State name	state (STATE)	U.S. Census Bureau (LEHD, 2018)